# Engineering Interpretations

## **Building Site Development**

Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, post construction performance, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns, landscaping, and golf fairways.

#### Shallow Excavations

Shallow excavations are trenches or holes dug in the soil to a maximum depth of 5 or 6 feet. They are used for pipelines, sewer lines, telephone and power transmission lines, basements, open ditches, and cemeteries. The ratings are based on the soil properties that influence ease of digging and resistance to sloughing.

# **Dwellings With or Without Basements**

These are single-family houses of three stories or less. The foundation is assumed to be spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper, for houses without basements, or at a depth of 7 feet if a basement is constructed. The ratings are based on properties affecting soil strength and settlement under a load, and those that affect excavation and construction costs.

# Small Commercial Buildings

Limitation ratings are given for the undisturbed soil on which small commercial buildings of less than three stories without basements are built. The foundation is assumed to be placed on spread footings of reinforced concrete at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper.

## Local Roads and Streets

Limitation ratings are given for the use of soils for construction of improved local roads and streets that have all-weather surfacing, commonly of asphalt, gravel with binder in it, or concrete, and that are expected to carry automobile traffic all year. These roads and streets are graded to shed water, and conventional drainage measures are provided. With the probable exception of the hard surface, roads and streets are built mainly from the soil at hand.

# Lawns, Landscaping, and Golf Fairways

The soils are rated for their use in establishing and maintaining turf for lawns and golf fairways and ornamental trees and shrubs for residential type landscaping. The ratings are based on the use of soil material at the location with some land smoothing. Irrigation may or may not be needed and is not a criterion in rating. Traps, trees, roughs, and greens are not considered as part of the golf fairway. The properties considered are those listed that affect plant growth and trafficability after vegetation is established.

This subsection includes:

• (a) Building Site Development

## Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	Dwellings with basem	ents	  Small commercial build 	dings	   Local roads and str 	eets	   Lawns and landscap 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64000: Racoon	  Very limited  ~wetness   (very limited)  ~flooding   (very limited)	1.00	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (slightly limited)	    1.00    1.00    0.17	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)	      1.00    1.00	Very limited  ~wetness   (very limited)  ~low strength   (very limited)  ~flooding (rare)   (limited)	      1.00    1.00    0.90	  Very limited  ~wetness   (very limited)	1.00
64001: Freeburg	Very limited   ~flooding   (very limited)   ~wetness   (limited)   ~shrink-swell   (moderately limited)	0.79 0.45	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.39	  Very limited  ~flooding   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	  0.45    0.45	Very limited   ~low strength   (very limited)  ~flooding (rare)   (limited)  ~wetness   (moderately limited)	  1.00    0.90    0.45	  Moderately limited  ~wetness   (moderately limited)  ~too acid   (slightly limited)	  0.45    0.12 
66003: Jemerson	~flooding   (very limited)	0.45	  Very limited  ~flooding   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (slightly limited)	0.47	  Very limited  ~flooding   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	  Very limited  ~low strength  (very limited)  ~flooding (rare)  (limited)  ~shrink-swell  (moderately limited)	  1.00    0.90    0.45	  Not limited   	
66005: Deible	  Very limited  ~wetness   (very limited)  ~flooding   (very limited)	  1.00    1.00 	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)	  1.00    1.00   	  Very limited  ~flooding   (very limited)  ~wetness   (very limited) 	  1.00    1.00   	  very limited  ~wetness   (very limited)  ~low strength   (very limited)  ~flooding (rare)   (limited)	  1.00    1.00    0.90	(very limited)	  1.00    0.20 

## Building Site Development

Map symbol and soil name	  Dwellings without base	ements	Dwellings with baseme	ents	  Small commercial build	dings	Local roads and str	eets	   Lawns and landscap	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
70028: Moko	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (moderately limited)	1.00	  -hard bedrock <40"   (very limited)  -slope   (moderately limited)	      1.00    0.45	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (very limited)	    1.00    1.00 	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (slightly limited)	    1.00    0.04 	Very limited  ~shallow to bedrock   (very limited)  ~droughty   (very limited)  ~slope   (slightly limited)	    1.00    1.00    0.04
Rock outcrop	  Not rated 		  Not rated 	   	  Not rated 	   	  Not rated 		  Not rated 	
70029: Moko	Not Rated   -hard bedrock <20"   (very limited)  -slope   (very limited)	1.00	  Very limited  ~hard bedrock <40"  (very limited)  ~slope  (very limited)      Not rated	1.00	  Very limited  ~hard bedrock <20"  (very limited)  ~slope  (very limited)      Not rated	1.00	  Very limited  ~hard bedrock <20"  (very limited)  ~slope  (very limited)      Not rated	1.00	  very limited  ~shallow to bedrock  (very limited)  ~droughty  (very limited)  ~slope  (very limited)  Not rated	    1.00    1.00    1.00
73012: Gravois	  Limited  ~wetness   (limited)  ~shrink-swell   (moderately limited)	0.85    0.45	  very limited  ~wetness   (very limited)  ~shrink-swell   (slightly limited)	    1.00    0.27 	  -slope   (limited)  -wetness   (moderately limited)  -shrink-swell   (moderately limited)	0.68	  Very limited  ~low strength  (very limited)  ~wetness  (moderately limited)  ~shrink-swell  (moderately limited)	    1.00    0.49    0.45	  Moderately limited  ~wetness   (moderately limited)	      0.49     

## Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	   Dwellings with basem   	ents	  Small commercial build   	dings	   Local roads and str   	eets	   Lawns and landscap 	ing
	Rating class and limiting features	Value	Rating class and limiting features	Value   	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73035: Gravois	  Limited  ~wetness  (limited)  ~slope  (limited)  ~shrink-swell  (moderately limited)	0.85	Very limited  -wetness (very limited)  -slope (limited)  -shrink-swell (slightly limited)	    1.00    0.68    0.27	  Very limited  ~slope   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	0.45	  Very limited  ~low strength  (very limited)  ~wetness  (moderately limited)  ~shrink-swell  (moderately limited)	      1.00    0.49    0.45	  Moderately limited  ~wetness   (moderately limited)  ~slope   (moderately limited)	0.49
73088: Rueter	  Limited  ~slope   (limited)  ~large stones   (slightly limited)	  0.76    0.29	Limited  -slope   (limited)  -large stones   (slightly limited)  -shrink-swell   (slightly limited)	  0.76    0.29    0.09	  Very limited  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    0.29 	  Limited  ~slope   (limited)  ~large stones   (slightly limited) 	  0.63    0.29 	  Very limited  ~large stones >30%   (very limited)  ~too acid   (limited)  ~slope   (limited)	  1.00    0.84    0.63
73089: Rueter	  Very limited  ~slope   (very limited)  ~large stones   (slightly limited)	İ	Very limited  -slope (very limited)  -large stones (slightly limited)  -shrink-swell (slightly limited)	  1.00    0.29    0.09	  very limited  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    0.29 	  Very limited  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    0.29 	  very limited  ~slope   (very limited)  ~small stones   (very limited)  ~too acid   (limited)	  1.00    1.00    0.84
73090: Useful	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)	  1.00    0.37 	Very limited  -shrink-swell  (very limited)  -wetness  (limited)  -depth to bedrock  (moderately limited)	  0.99    0.35	Very limited  ~shrink-swell  (very limited)  ~slope  (limited)	  1.00    0.68 	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	1.00	  Not limited 	

## Building Site Development

Map symbol and soil name	Dwellings without base   	ements	Dwellings with basem	ents	Small commercial build 	dings	Local roads and str	eets	Lawns and landscar	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73091: Useful, eroded-	~shrink-swell   (very limited)  ~slope   (limited)	        0.76    0.37	Very limited  ~shrink-swell (very limited)  ~wetness ((limited)  ~slope ((limited)	    1.00    0.99    0.76	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)	      1.00    1.00	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (limited)	    1.00    1.00    0.63	Limited  ~slope   (limited)  ~large stones   (slightly limited)	0.63
73092: Gatewood	  Very limited  ~shrink-swell  (very limited)  ~wetness  (moderately limited)  ~depth to bedrock  (moderately limited)	0.51	  Very limited  ~hard bedrock <40"   (very limited)  ~shrink-swell   (very limited)  ~wetness   (very limited)	  1.00    1.00    1.00	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)  ~depth to bedrock   (moderately limited)	  1.00    0.83    0.51	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~depth to bedrock   (moderately limited)	  1.00    1.00    0.51	  Very limited  ~small stones   (very limited)  ~depth to bedrock   (moderately limited)  ~droughty   (slightly limited)	  1.00    0.42    0.22
73093: Gatewood	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)  ~wetness   (moderately limited)	  1.00    0.76    0.51	  Very limited  ~hard bedrock <40"   (very limited)  ~shrink-swell   (very limited)  ~wetness   (very limited)	  1.00    1.00    1.00	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)  ~depth to bedrock   (moderately limited)	  1.00    1.00    0.51	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (limited)	  1.00    1.00    0.63	  Very limited  ~small stones   (very limited)  ~slope   (limited)  ~depth to bedrock   (moderately limited)	  1.00    0.63    0.42
73094: Gatewood	  Very limited  ~shrink-swell   (very limited)  ~slope   (very limited)  ~wetness   (moderately limited)	  1.00    1.00    0.51	Very limited  -hard bedrock <40"   (very limited)  -shrink-swell   (very limited)  -slope   (very limited)	  1.00    1.00    1.00	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)  ~depth to bedrock   (moderately limited)	  1.00    1.00    0.51	  Very limited  ~low strength   (very limited)  ~slope   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00    1.00	  very limited  ~slope   (very limited)  ~depth to bedrock   (moderately limited)  ~droughty   (slightly limited)	  1.00  0.42  )  0.22

## Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	   Dwellings with basem   	ents	  Small commercial build 	dings	Local roads and str	eets	   Lawns and landscar 	ping
	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value	Rating class and limiting features	Value   	Rating class and limiting features	Value
73095: Gravois	  Very limited  ~slope   (very limited)  ~wetness   (limited)  ~shrink-swell   (moderately limited)	    1.00    0.85    0.45	  very limited  ~slope   (very limited)  ~wetness   (very limited)  ~shrink-swell   (slightly limited)	   1.00   1.00   1.00   0.27	  Very limited  ~slope   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	    1.00    0.49    0.45	  Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~wetness   (moderately limited)	    1.00    1.00    0.49	  very limited  ~slope   (very limited)  ~wetness   (moderately limited)	1.00
73097: Swiss	Very limited   ~shrink-swell   (very limited)   ~slope   (very limited)   ~wetness   (moderately limited)	  1.00    1.00    0.37	Very limited   ~shrink-swell   (very limited)   ~slope   (very limited)   ~wetness   (limited)	  1.00    1.00    0.99	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00 	Very limited   ~slope   (very limited)   ~shrink-swell   (very limited)   ~low strength   (very limited)	  1.00    1.00    1.00	Very limited   ~slope   (very limited)   ~too acid   (slightly limited)  ~small stones   (slightly limited)	  1.00    0.24    0.23
73098: Plato	  Very limited  ~shrink-swell   (very limited)  ~wetness   (very limited)	1.00	  very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00 	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	    1.00    0.94 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    1.00    0.94	(slightly limited)	0.94
73106: Mariosa	  Very limited  ~wetness   (very limited)	    1.00   	  Very limited  ~wetness   (very limited) 	  1.00     	  Very limited  ~wetness   (very limited) 	  1.00     	  Very limited  ~wetness   (very limited)  ~low strength   (very limited)	  1.00    1.00	  very limited  ~wetness   (very limited)  ~droughty   (limited)	  1.00    0.94

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem   	ents	  Small commercial build   	dings	   Local roads and str   	eets	   Lawns and landscap 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73108: Gravois	  Limited  ~wetness   (limited)  ~shrink-swell   (moderately limited)	0.85	  Very limited  ~wetness   (very limited)  ~shrink-swell   (slightly limited)	    1.00    0.27	  Limited  ~slope   (limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	0.45	  Very limited  ~low strength   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	    1.00    0.49    0.45	  Very limited  ~large stones >30%   (very limited)  ~wetness   (moderately limited)	1.00
Gatewood	Very limited   ~shrink-swell   (very limited)   ~wetness   (moderately limited)   ~depth to bedrock   (moderately limited)	  1.00    0.51    0.51	   Very limited   ~hard bedrock <40"   (very limited)   ~shrink-swell   (very limited)   ~wetness   (very limited)	  1.00    1.00    1.00	   Very limited   ~shrink-swell   (very limited)   ~slope   (limited)   ~depth to bedrock   (moderately limited)	  1.00    0.68    0.51	   Very limited   ~low strength   (very limited)   ~shrink-swell   (very limited)   ~depth to bedrock   (moderately limited)	  1.00    1.00    0.51	   Very limited   ~small stones   (very limited)   ~depth to bedrock   (moderately limited)   ~droughty   (slightly limited)	  1.00    0.42    0.22
73109: Alred	  Very limited  ~slope   (very limited)	1.00	  Very limited  ~slope   (very limited) 	  1.00       	  Very limited  ~slope   (very limited)   	  1.00         	  Very limited  ~slope   (very limited)   	    1.00       	  very limited  ~slope   (very limited)  ~droughty   (very limited)  ~small stones   (very limited)	  1.00    1.00    1.00
73112: Gunlock	Limited   -wetness   (limited)   -shrink-swell   (moderately limited)	  0.93    0.45 	  Very limited  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	  Limited  ~slope   (limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	  0.68    0.56    0.45	  Very limited  ~low strength   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	  1.00    0.56    0.45	  Moderately limited  ~wetness   (moderately limited)	0.56

## Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	   Dwellings with basem@   	ents	  Small commercial build 	dings	   Local roads and str 	eets	   Lawns and landscar 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73135: Union	  Limited  ~wetness   (limited)  ~shrink-swell   (moderately limited)	0.93	  -wetness   (very limited)  -shrink-swell   (moderately limited)	0.45	  Limited  ~slope   (limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	0.45	  Very limited  ~low strength  (very limited)  ~wetness  (moderately limited)  ~shrink-swell  (moderately limited)	      1.00    0.56    0.45	  Moderately limited  ~wetness   (moderately limited)	0.56
73136: Union	  Limited  ~wetness   (limited)  ~shrink-swell   (moderately limited)	0.93	  Very limited  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	   Moderately limited   ~wetness   (moderately limited)   ~shrink-swell   (moderately limited)	0.45	  Very limited  ~low strength   (very limited)  ~wetness   (moderately limited)  ~shrink-swell   (moderately limited)	  1.00    0.56    0.45	  Moderately limited  ~wetness   (moderately limited) 	  0.56     
73158: Cotton	  Very limited  ~shrink-swell   (very limited)  ~wetness   (very limited)  ~slope   (slightly limited)	  1.00    1.00    0.15	Very limited  ~wetness (very limited)  ~shrink-swell (very limited)  ~slope (slightly limited)	  1.00    1.00    0.15	  Very limited  ~shrink-swell   (very limited)  ~wetness   (very limited)  ~slope   (limited)	  1.00    1.00    0.83	(very limited)	ĺ	  Very limited  ~wetness   (very limited)  ~too acid   (slightly limited)	  1.00    0.12 
73165: Knobby	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    1.00    0.03	Very limited  -hard bedrock <40"  (very limited)  -slope  (very limited)  -large stones  (slightly limited)	  1.00 	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    1.00    0.03	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (very limited)  ~large stones   (slightly limited)	  1.00    1.00    0.03	(very limited)  ~shallow to bedrock   (very limited)	  1.00    1.00    1.00
Rock outcrop	  Not rated 	     	  Not rated 	     	  Not rated 	   	  Not rated 		  Not rated 	

## Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem 	ents	  Small commercial build 	dings	   Local roads and str 	eets	   Lawns and landscap 	ping
	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73165: (cont) Bardley	  Very limited  ~slope   (very limited)  ~depth to bedrock   (moderately limited)  ~shrink-swell   (moderately limited)	0.45	Very limited  -hard bedrock <40" (very limited)  -slope (very limited)  -shrink-swell ((moderately limited)	    1.00    1.00    0.45	  Very limited  ~slope   (very limited)  ~depth to bedrock   (moderately limited)  ~shrink-swell   (moderately limited)	0.45	  Very limited  ~low strength  (very limited)  ~slope  (very limited)  ~depth to bedrock  (moderately limited)	      1.00    1.00    0.53	  Very limited  ~slope   (very limited)  ~small stones   (limited)  ~droughty   (limited)	  1.00    1.00    0.66
73168: Swiss	Very limited   ~shrink-swell   (very limited)   ~slope   (moderately limited)   ~wetness   (moderately limited)	  1.00    0.60    0.37	Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)  ~slope   (moderately limited)	  0.99    0.60	  Very limited  ~shrink-swell   (very limited)  ~slope   (very limited)	  1.00    1.00	  Very limited  ~shrink-swell   (very limited)  ~low strength   (very limited)  ~slope   (slightly limited)	  1.00    1.00    0.16	  Slightly limited  ~too acid   (slightly limited)  ~slope   (slightly limited)	0.24
73192: Beemont	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)	    1.00    0.45	Very limited  -wetness (very limited)  -shrink-swell (limited)  -depth to bedrock (moderately limited)	  1.00    1.00    0.50	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)	  1.00    0.68 	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	  1.00    1.00 	  Very limited  ~small stones   (very limited)  ~too acid   (slightly limited)  ~large stones   (slightly limited)	  1.00    0.18    0.01
73193: Beemont	Very limited   ~shrink-swell   (very limited)   ~slope   (limited)   ~wetness   (moderately limited)	  1.00    0.76    0.45	Very limited  -wetness (very limited)  -shrink-swell (limited)  -slope (limited)	  1.00    1.00    0.76	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00 	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (limited)	  1.00    1.00    0.63	  Limited  ~small stones   (limited)  ~slope   (limited)  ~large stones   (moderately limited)	0.65

## Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	Dwellings with baseme	ents	  Small commercial buil 	dings	   Local roads and str   	reets	   Lawns and landscap 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
73194: Beemont	  Very limited  ~shrink-swell   (very limited)  ~slope   (very limited)  ~wetness   (moderately limited)	1.00	  Very limited  ~slope   (very limited)  ~wetness   (very limited)  ~shrink-swell   (limited)	İ	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (very limited)	    1.00    1.00    1.00	  Very limited  ~slope   (very limited)  ~small stones   (very limited)  ~too acid   (slightly limited)	   1.00   1.00   1.00   0.18
73195: Useful		1.00	Very limited  -shrink-swell  (very limited)  -wetness  (limited)  -depth to bedrock  (moderately limited)	  0.99    0.35	  very limited  ~shrink-swell  (very limited)  ~slope  (limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	1.00	  Not limited 	
Moko	Not Rated Not Rated	      1.00   	   Very limited   ~hard bedrock <40"   (very limited)	  1.00       	   Very limited   ~hard bedrock <20"   (very limited)   ~slope   (limited)	  1.00    0.68 	  Very limited  ~hard bedrock <20"   (very limited)   	  1.00       	  very limited  ~shallow to bedrock   (very limited)  ~droughty   (very limited)  ~too clayey   (moderately limited)	  1.00    1.00    0.60
73196: Mariosa	  very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00	  very limited  -wetness   (very limited)  -shrink-swell   (very limited)	    1.00    1.00 	  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~low strength   (very limited)  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00    1.00	  Very limited  ~wetness   (very limited)  ~droughty   (limited)	  1.00    0.95

## Building Site Development

Map symbol and soil name	Dwellings without bas	sements	Dwellings with baser	ments	Small commercial bui	ldings	Local roads and st	reets	Lawns and landsca   	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74633: Hartville	  Very limited  ~shrink-swell  (very limited)  ~wetness  (limited)	0.99	  very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (limited)	1.00	  Limited  ~wetness   (limited)	0.60
74634: Hartville	  Very limited  ~shrink-swell  (very limited)  ~wetness  (limited)	1.00	  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)  ~wetness   (limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (limited)	1.00	  Limited  ~wetness   (limited)	0.60
74656: Deible	  -  Very limited  ~wetness   (very limited)  ~flooding   (very limited)	1.00	  Very limited  ~flooding  (very limited)  ~wetness  (very limited)	1.00	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)	1.00	Very limited   -wetness   (very limited)   -flooding (rare)   (limited)   -low strength   (limited)	1.00	  Very limited  ~wetness   (very limited)  ~droughty   (slightly limited)	1.00
75376: Cedargap	  - Very limited  ~flooding   (very limited)  ~wetness   (slightly limited)	1.00	  Very limited  ~flooding  (very limited)  ~wetness  (limited)	1.00	  Very limited  ~flooding   (very limited) 	1.00	  Very limited  ~flooding   (very limited) 	1.00	  Very limited  ~flooding   (very limited)  ~small stones   (slightly limited)  ~large stones   (slightly limited)	  1.00    0.27    0.01

## Building Site Development

Map symbol and soil name	  Dwellings without base	ements	Dwellings with baseme	ents	  Small commercial buile	dings	Local roads and str	eets	Lawns and landscap	ing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75389: Hacreek	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	    1.00    1.00    0.45	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	      1.00    1.00    0.45	Very limited   ~low strength   (very limited)   ~wetness   (very limited)   ~flooding (rare)   (limited)	    1.00    1.00    0.90	  Very limited  ~wetness   (very limited)	1.00
75395: Jamesfin	  Very limited  ~flooding   (very limited)	1.00	  Very limited  ~flooding   (very limited)  ~wetness   (slightly limited)	    1.00    0.16	  Very limited  ~flooding   (very limited)	    1.00   	  Very limited  ~flooding   (very limited)  ~low strength   (very limited)	    1.00    1.00	  Moderately limited  ~flooding   (moderately limited)	    0.60   
75398: Kaintuck	  Very limited  ~flooding   (very limited)	    1.00	  Very limited  ~flooding   (very limited)	    1.00 	  Very limited  ~flooding   (very limited)	    1.00 	  Very limited  ~flooding   (very limited)	    1.00 	  Very limited  ~flooding   (very limited)	1.00
75399: Jamesfin		    1.00 	(very limited)		  Very limited  ~flooding   (very limited)	    1.00 	  Very limited  ~flooding   (very limited)	1.00	  Very limited  ~flooding   (very limited)	  1.00 
75400: Gladden		        1.00	<pre>  ~wetness   (slightly limited)        Very limited   ~flooding   (very limited)</pre>	0.16            1.00	    Very limited  ~flooding   (very limited)	          1.00	<pre>  ~low strength   (very limited)     Very limited   ~flooding   (very limited)</pre>	1.00            1.00	  Very limited  ~flooding   (very limited)	        1.00

## Building Site Development

Map symbol and soil name	Dwellings without bas	sements	Dwellings with basem	nents	S   Small commercial buildings   Local roads and streets   Lawns a			Lawns and landsca	ping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75408: Secesh	  Very limited  ~flooding   (very limited)	1.00	  Very limited  ~flooding   (very limited)  ~shrink-swell   (slightly limited)	1.00	  Very limited  ~flooding   (very limited)	1.00	  Limited  ~flooding (rare)   (limited)	0.90	  Not limited 	
99000: Pits, quarries-	  Not rated		    Not rated 		  Not rated 		  Not rated 		  Not rated 	
99001: Water	  Not rated 		    Not rated 		    Not rated 		    Not rated 		    Not rated 	